



**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Hiroyuki NAGASAKA

Group Art Unit: 2882

Application No.: 10/589,962

Examiner: C. RIDDLE

Filed: August 18, 2006

Docket No.: 128675

For: EXPOSURE METHOD, EXPOSURE APPARATUS, EXPOSURE SYSTEM AND  
DEVICE MANUFACTURING METHOD

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This request is being filed with a Notice of Appeal. Review of the June 22, 2011 Final Rejection is requested for the reasons set forth in the attached five or fewer sheets.

Should any questions arise regarding this submission, or the Review Panel believe that anything further would be desirable in order to place this application in even better condition for allowance, the Review Panel is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

Mario A. Costantino  
Registration No. 33,565

Steven D. Jinks  
Registration No. 62,760

MAC:SDJ/hs

Date: September 22, 2011

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 320850**  
**Alexandria, Virginia 22320-4850**  
**Telephone: (703) 836-6400**

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**REMARKS**

Claims 1, 3, 6-12, 14, 19-23, 26, 27 and 30 remain rejected under 35 U.S.C. §103(a) over Ozawa et al. (U.S. Patent No. 5,739,898) in view of Fujishima et al. (JP 2000-058436) and claims 4, 5, 15-18, 28 and 29 remain rejected under 35 U.S.C. §103(a) over Ozawa in view of Fujishima and Kudo (JP 10-340846). The Final Rejection contains clear legal and factual errors and therefore the rejections should be withdrawn.

**BACKGROUND**

Independent claim 1 recites "a wavelength of said exposure light that enters said space for said at least one exposure is the same as a wavelength of said exposure light that enters said space for said another exposure." Independent claim 12 recites "a wavelength of said exposure light that enters said space under said first exposure condition is the same as a wavelength of said exposure light that enters said space under said second exposure condition." Independent claim 27 recites "a wavelength of said exposure light that enters said space is a same wavelength for said at least one exposure and for said another exposure, and said adjustment unit adjusts the substantial wavelength after the exposure light enters said space." The Office Action acknowledges that Ozawa fails to disclose these features but alleges that Fujishima overcomes the deficiencies of Ozawa and that it would have been obvious to modify Ozawa in view of Fujishima to result in the features of Applicant's claims.

The Final Rejection states "Altering *where* the substantial wavelength of the exposure light is changed would not change the fundamental principle of operation of Ozawa." Final Rejection at page 28.

Ozawa's method and apparatus are achieved by "two or more exposure wavelengths [that] are used in a pattern on a reticle [that] is constructed using optical filters having different transmittances for the two or more different exposure wavelengths" and "employ[ing] a photosensitive material consisting of two or more types of photoresist having

different sensitivity properties for the two or more different wavelengths." Ozawa at col. 38, lines 28-34. Thus, Ozawa relates to an exposure method and an exposure apparatus in which a pattern on a reticle is constructed using optical filters having different transmittances for two or more different wavelengths of exposure light and the reticle is irradiated with different wavelengths of the lights in each exposure of a plurality of exposures. Without using different wavelengths of light, Ozawa would only be able to utilize a single optical filter, i.e., the optical filter that is designed for the single wavelength. A second optical filter with a different transmittance would not function according to Ozawa's disclosure unless the appropriate second wavelength of light is used with that second filter.

### **CLEAR LEGAL ERROR**

The Final Rejection's reasoning is based on a clear error of law because the modification proposed in the Final Rejection violates MPEP §2143.01(VI) which states " If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." By modifying Ozawa such that only one wavelength of light passes through Ozawa's reticle (which would be the result of the Examiner's modification of Ozawa so that the wavelength entering the claimed "space" (which is downstream of the reticle) is the same for both exposures), the principle of operation in Ozawa would be destroyed and Ozawa would no longer function as disclosed.

The principle of operation in Ozawa requires different wavelengths to pass through the same reticle in order for Ozawa to function as disclosed. If only one wavelength passes through Ozawa's reticle (and instead the wavelength is changed after the reticle) as proposed by the Final Rejection, Ozawa would no longer function because its multi-phase reticle requires the use of exposure light with two or more different wavelengths (one wavelength for each of the optical filters having different transmittances). Therefore, it would not have been

obvious to modify Ozawa in view of Fujishima at least because the modification of Ozawa proposed in the Final Rejection would destroy the principle of operation of Ozawa and therefore is not sufficient to render the claims *prima facie* obvious.